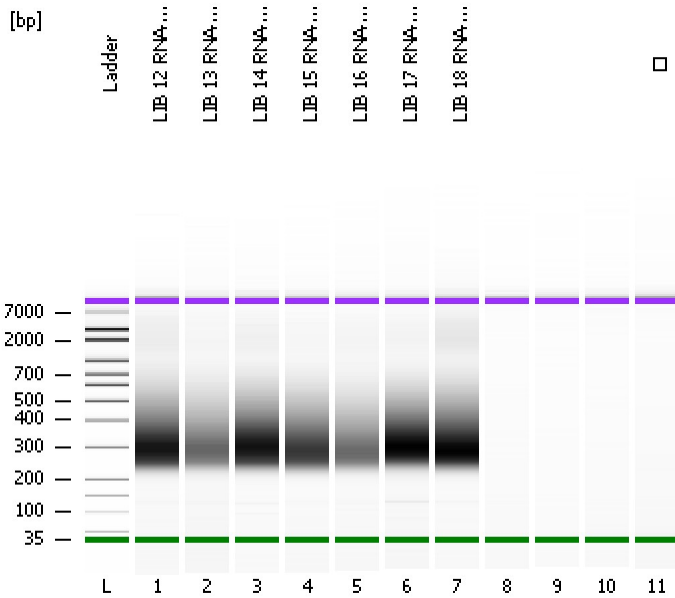


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-09-26\2019-09-26\_002.xad

Created: 9/26/2019 1:23:24 PM  
Modified: 9/26/2019 2:04:42 PM

**Electrophoresis File Run Summary**



Instrument Information:

Instrument Name: DE34903152      Firmware: C.01.069  
Serial#: DE34903152      Type: G2938C

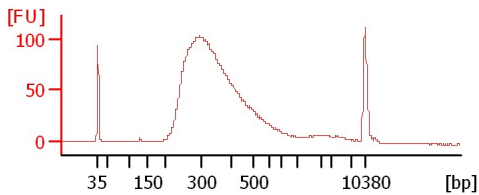
Assay Information:

Assay Origin Path: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\assays\dsDNA\High Sensitivity DNA.xsy  
Assay Class: High Sensitivity DNA Assay  
Version: 1.03  
Assay Comments: Copyright © 2003-2010 Agilent Technologies

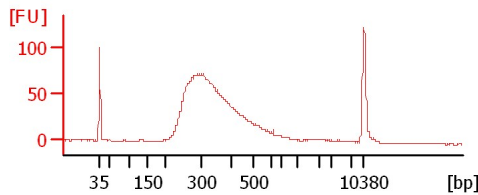
Chip Information:

Chip Lot #:  
Reagent Kit Lot #:  
Chip Comments:

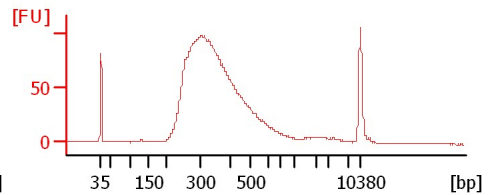
LIB 12 RNA-seq



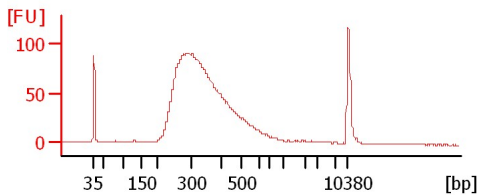
LIB 13 RNA-seq



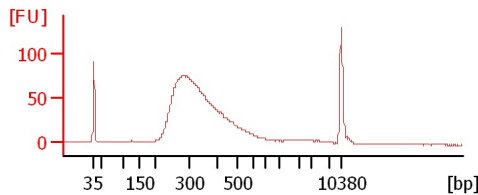
LIB 14 RNA-seq



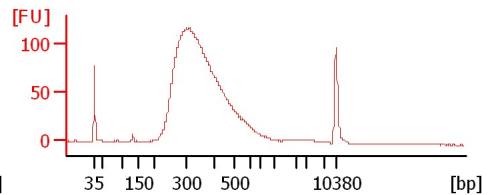
LIB 15 RNA-seq



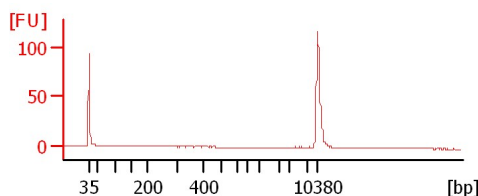
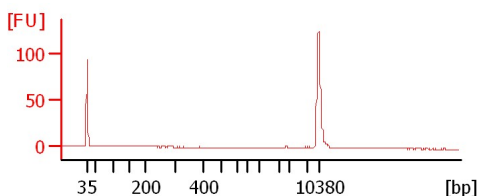
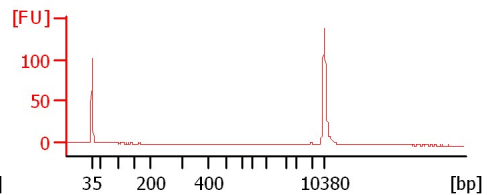
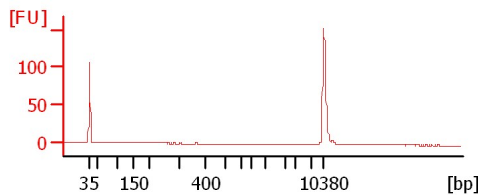
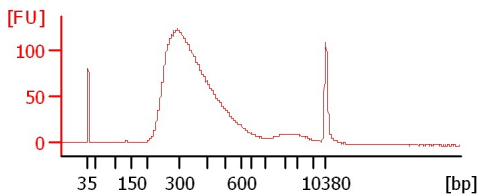
LIB 16 RNA-seq



LIB 17 RNA-seq



LIB 18 RNA-seq



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-09-26\2019-09-26\_002.xad

Created: 9/26/2019 1:23:24 PM  
Modified: 9/26/2019 2:04:42 PM

**Electrophoresis File Run Summary (Chip Summary)**

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
LIB 12 RNA-seq		<input type="checkbox"/>	✓			
LIB 13 RNA-seq		<input type="checkbox"/>	✓			
LIB 14 RNA-seq		<input type="checkbox"/>	✓			
LIB 15 RNA-seq		<input type="checkbox"/>	✓			
LIB 16 RNA-seq		<input type="checkbox"/>	✓			
LIB 17 RNA-seq		<input type="checkbox"/>	✓			
LIB 18 RNA-seq		<input type="checkbox"/>	✓			
		<input type="checkbox"/>	✓			
		<input type="checkbox"/>	✓			
<input type="checkbox"/> Ladder		<input type="checkbox"/>	✓			
		<input type="checkbox"/>	✓			

**Chip Lot #** **Reagent Kit Lot #**

**Chip Comments :**

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-09-26\2019-09-26\_002.xad

Created: 9/26/2019 1:23:24 PM  
Modified: 9/26/2019 2:04:42 PM

**Electrophoresis Assay Details**

**General Analysis Settings**

Number of Available Sample and Ladder Wells (Max.) : 12  
Minimum Visible Range [s] : 32  
Maximum Visible Range [s] : 138  
Start Analysis Time Range [s] : 33  
End Analysis Time Range [s] : 137.5  
Ladder Concentration [pg/μl] : 1950  
Uses Standard Area for Ladder Fragments  
Lower Marker Concentration [pg/μl] : 125  
Upper Marker Concentration [pg/μl] : 75  
Used Upper Marker for Quantitation  
Standard Curve Fit is Point to Point  
Show Data Aligned to Lower and Upper Marker

**Integrator Settings**

Integration Start Time [s] : 33.05  
Integration End Time [s] : 137  
Slope Threshold : 0.8  
Height Threshold [FU] : 5  
Area Threshold : 0.1  
Width Threshold [s] : 0.6  
Baseline Plateau [s] : 0.5

**Filter Settings**

Filter Width [s] : 0.5  
Polynomial Order : 4

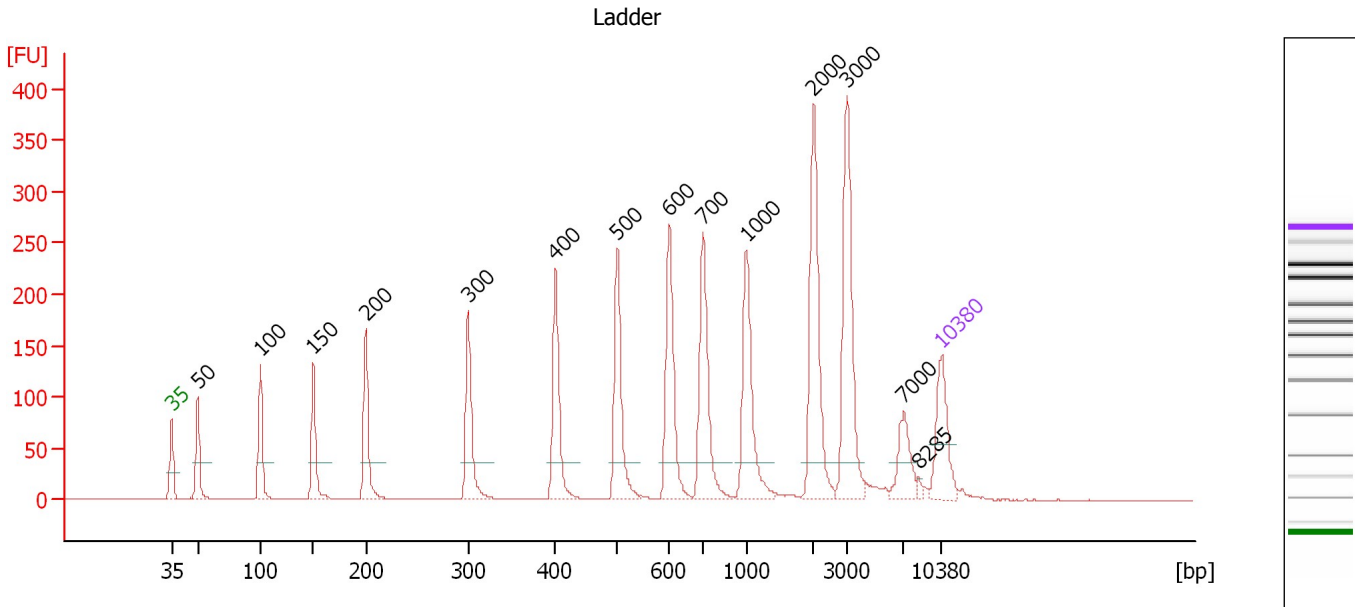
**Ladder**

Ladder Peak	Size	Area
1	35	160
2	50	210
3	100	208
4	150	221
5	200	242
6	300	270
7	400	305
8	500	306
9	600	336
10	700	321
11	1000	366
12	2000	413
13	3000	411
14	7000	400
15	10380	214

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-09-26\2019-09-26\_002.xad

Created: 9/26/2019 1:23:24 PM  
 Modified: 9/26/2019 2:04:42 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

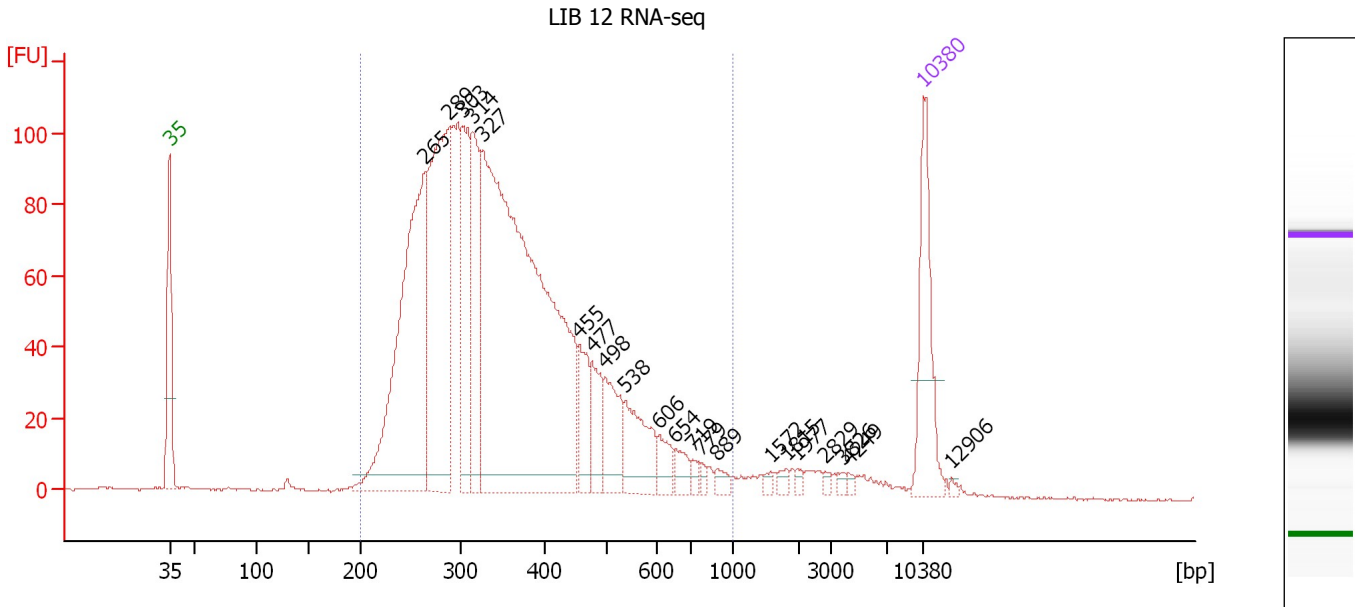
**Peak table for Ladder**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	50	150.00	4,545.5	Ladder Peak	45.38
3	100	150.00	2,272.7	Ladder Peak	51.10
4	150	150.00	1,515.2	Ladder Peak	55.89
5	200	150.00	1,136.4	Ladder Peak	60.65
6	300	150.00	757.6	Ladder Peak	69.95
7	400	150.00	568.2	Ladder Peak	77.90
8	500	150.00	454.5	Ladder Peak	83.53
9	600	150.00	378.8	Ladder Peak	88.23
10	700	150.00	324.7	Ladder Peak	91.33
11	1,000	150.00	227.3	Ladder Peak	95.26
12	2,000	150.00	113.6	Ladder Peak	101.37
13	3,000	150.00	75.8	Ladder Peak	104.42
14	7,000	150.00	32.5	Ladder Peak	109.56
15	8,285	0.00	0.0		110.87
16	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-09-26\2019-09-26\_002.xad

Created: 9/26/2019 1:23:24 PM  
 Modified: 9/26/2019 2:04:42 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : LIB 12 RNA-seq**

Number of peaks found: 21                      Corr. Area 1: 2,292.9  
 Noise: 0.3

**Peak table for sample 1 : LIB 12 RNA-seq**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	265	390.62	2,233.3		66.70
3	289	312.94	1,638.1		68.97
4	303	129.62	649.0		70.16
5	314	122.93	593.6		71.05
6	327	818.37	3,786.3		72.14
7	455	49.19	163.8		80.99
8	477	43.95	139.6		82.23
9	498	57.13	173.8		83.42
10	538	64.47	181.7		85.30
11	606	19.92	49.8		88.41
12	654	16.63	38.5		89.90
13	719	6.37	13.4		91.58
14	779	4.77	9.3		92.37
15	889	7.75	13.2		93.81
16	1,572	3.79	3.7		98.75
17	1,815	5.17	4.3		100.24
18	1,977	3.67	2.8		101.23
19	2,829	2.59	1.4		103.90
20	3,826	3.37	1.3		105.48
21	4,249	3.16	1.1		106.02
22	10,380	75.00	10.9	Upper Marker	113.00
23	12,906	0.00	0.0		115.57


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-09-26\2019-09-26\_002.xad

Created: 9/26/2019 1:23:24 PM  
Modified: 9/26/2019 2:04:42 PM

**Electropherogram Summary Continued ...**

... Region table for sample 1 :

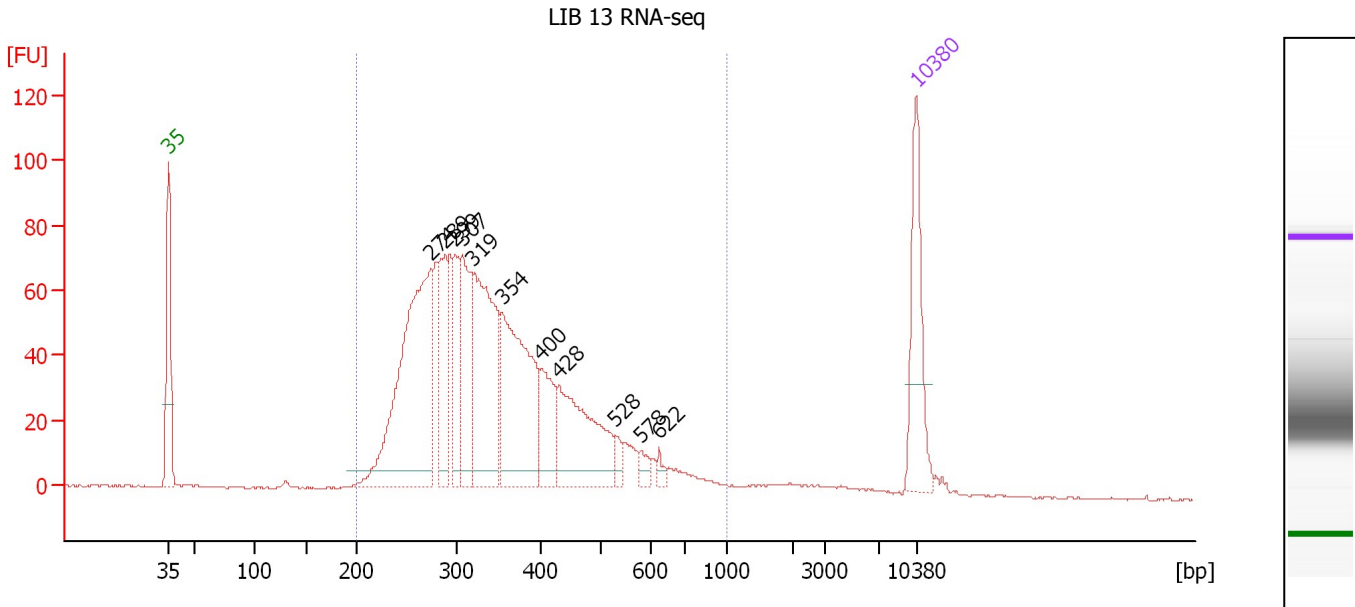
**LIB 12 RNA-seq**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/ $\mu$ l]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	364	2,177.59	2,292.9	10,090.4	 94	31.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-09-26\2019-09-26\_002.xad

Created: 9/26/2019 1:23:24 PM  
 Modified: 9/26/2019 2:04:42 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : LIB 13 RNA-seq**

Number of peaks found: 11                      Corr. Area 1: 1,524.4  
 Noise: 0.3

**Peak table for sample 2 : LIB 13 RNA-seq**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	274	353.11	1,951.5		67.55
3	289	99.55	522.6		68.89
4	299	72.06	365.4		69.84
5	307	111.82	552.3		70.49
6	319	212.35	1,007.6		71.49
7	354	208.64	893.4		74.23
8	400	62.37	236.5		77.88
9	428	139.25	493.1		79.47
10	528	11.54	33.1		84.86
11	578	9.79	25.6		87.21
12	622	6.91	16.8		88.90
13	10,380	75.00	10.9	Upper Marker	113.00

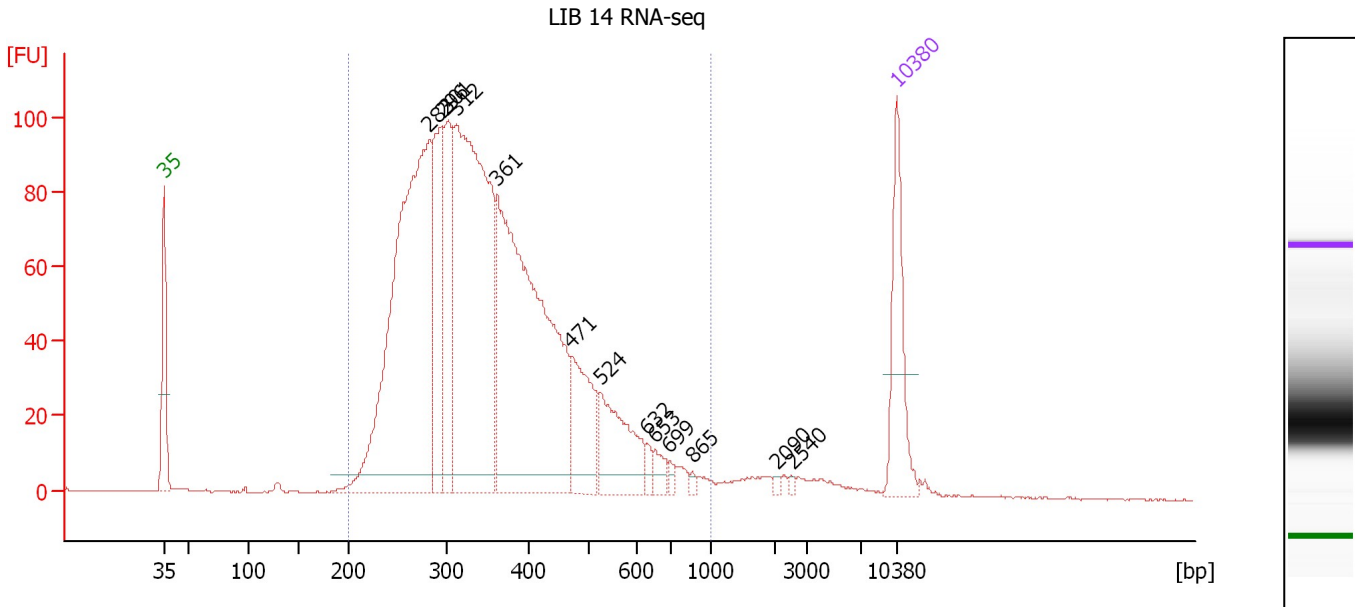
**Region table for sample 2 : LIB 13 RNA-seq**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	358	1,465.60	1,524.4	6,845.3	97	30.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-09-26\2019-09-26\_002.xad

Created: 9/26/2019 1:23:24 PM  
 Modified: 9/26/2019 2:04:42 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : LIB 14 RNA-seq**

Number of peaks found: 13                      Corr. Area 1: 2,189.3  
 Noise: 0.2

**Peak table for sample 3 : LIB 14 RNA-seq**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	282	639.80	3,432.0		68.32
3	296	157.97	809.7		69.54
4	301	143.29	720.7		70.05
5	312	554.36	2,690.9		70.92
6	361	553.37	2,319.4		74.84
7	471	98.16	315.4		81.92
8	524	97.64	282.1		84.67
9	632	8.58	20.6		89.21
10	653	14.47	33.6		89.87
11	699	5.75	12.5		91.30
12	865	3.61	6.3		93.49
13	2,090	2.50	1.8		101.64
14	2,540	2.31	1.4		103.01
15	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 3 : LIB 14 RNA-seq**

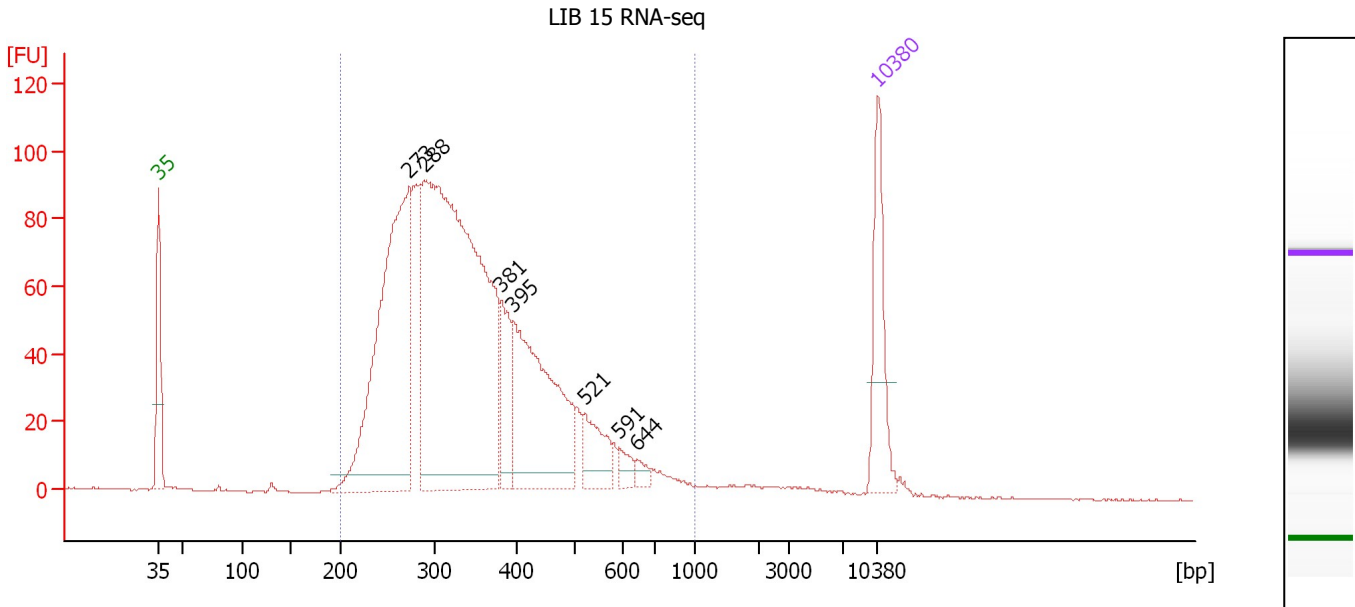
From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	363	2,305.78	2,189.3	10,631.0	96	30.7



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-09-26\2019-09-26\_002.xad

Created: 9/26/2019 1:23:24 PM  
 Modified: 9/26/2019 2:04:42 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : LIB 15 RNA-seq**

Number of peaks found: 7                      Corr. Area 1: 1,985.8  
 Noise: 0.2

**Peak table for sample 4 : LIB 15 RNA-seq**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	273	487.52	2,709.3		67.41
3	288	886.25	4,667.3		68.81
4	381	71.54	284.5		76.39
5	395	251.53	964.0		77.53
6	521	50.39	146.7		84.49
7	591	14.31	36.7		87.81
8	644	10.17	23.9		89.58
9	10,380	75.00	10.9	Upper Marker	113.00

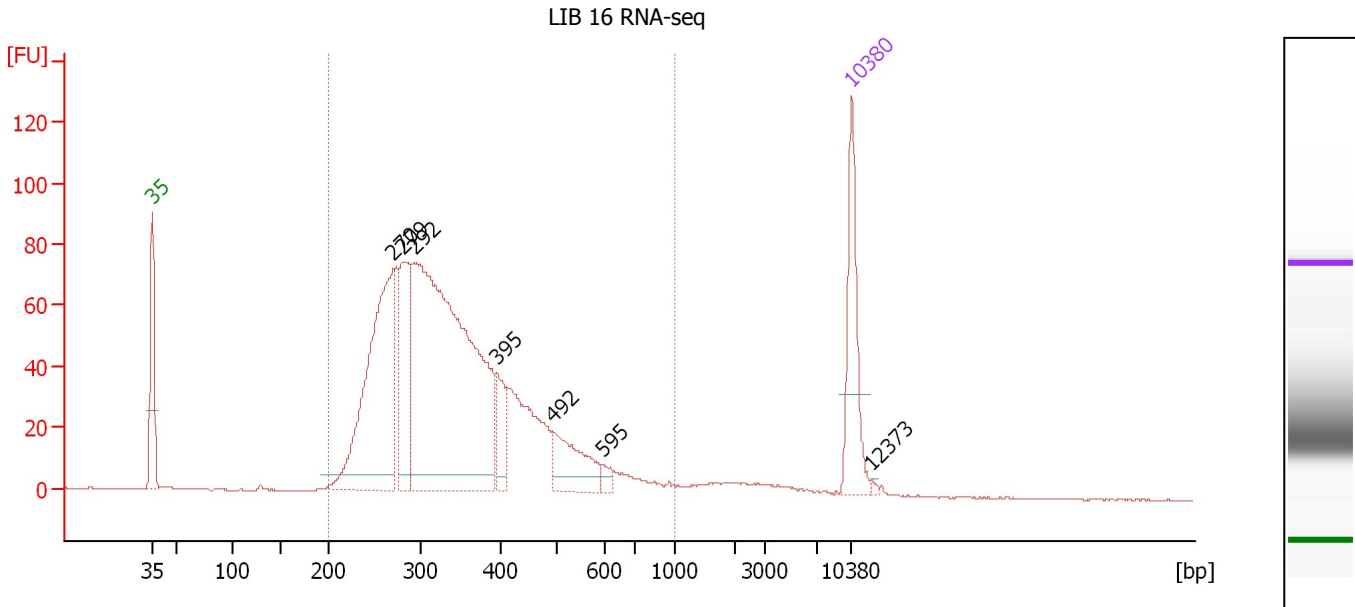
**Region table for sample 4 : LIB 15 RNA-seq**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	355	1,897.65	1,985.8	8,947.3	98	30.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-09-26\2019-09-26\_002.xad

Created: 9/26/2019 1:23:24 PM  
 Modified: 9/26/2019 2:04:42 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : LIB 16 RNA-seq**

Number of peaks found: 7      Corr. Area 1: 1,544.8  
 Noise: 0.2

**Peak table for sample 5 : LIB 16 RNA-seq**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	270	343.70	1,930.8		67.13
3	279	122.95	666.6		68.04
4	292	701.07	3,643.8		69.16
5	395	46.03	176.6		77.49
6	492	70.59	217.2		83.10
7	595	9.57	24.4		88.01
8	10,380	75.00	10.9	Upper Marker	113.00
9	12,373	0.00	0.0		115.03

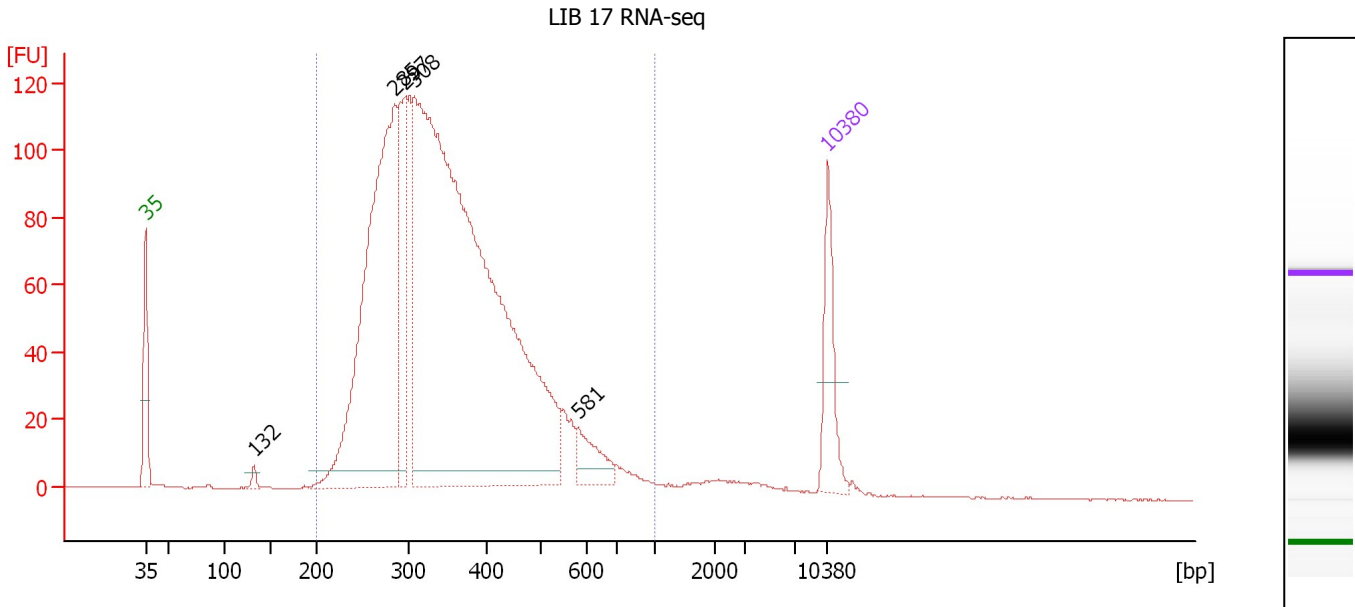
**Region table for sample 5 : LIB 16 RNA-seq**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	353	1,467.40	1,544.8	6,938.2	95	30.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-09-26\2019-09-26\_002.xad

Created: 9/26/2019 1:23:24 PM  
 Modified: 9/26/2019 2:04:42 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : LIB 17 RNA-seq**

Number of peaks found: 5                      Corr. Area 1: 2,388.6  
 Noise: 0.2

**Peak table for sample 6 : LIB 17 RNA-seq**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	132	11.43	131.4		54.16
3	285	761.84	4,044.5		68.59
4	297	199.83	1,020.9		69.63
5	308	1,772.93	8,731.0		70.56
6	581	49.79	129.8		87.35
7	10,380	75.00	10.9	Upper Marker	113.00

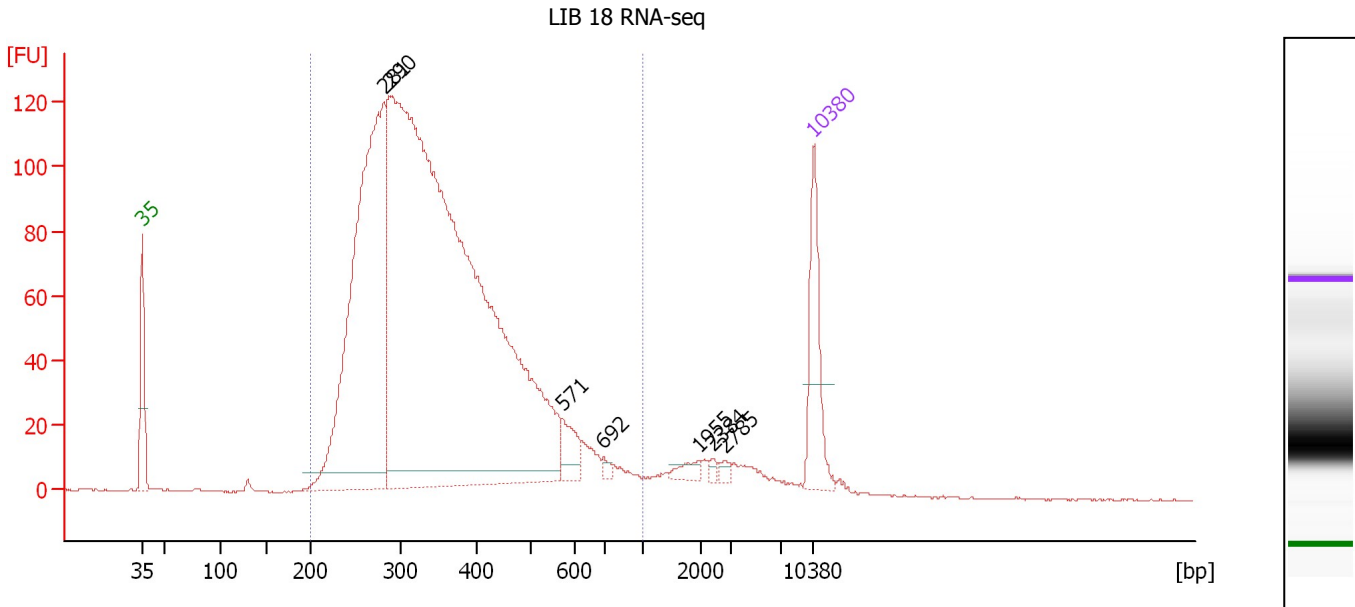
**Region table for sample 6 : LIB 17 RNA-seq**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	362	2,821.48	2,388.6	12,900.6	97	28.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-09-26\2019-09-26\_002.xad

Created: 9/26/2019 1:23:24 PM  
 Modified: 9/26/2019 2:04:42 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : LIB 18 RNA-seq**

Number of peaks found: 7      Corr. Area 1: 2,550.1  
 Noise: 0.2

**Peak table for sample 7 : LIB 18 RNA-seq**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	281	725.57	3,908.9		68.21
3	290	1,964.18	10,276.1		68.99
4	571	32.51	86.3		86.85
5	692	5.85	12.8		91.08
6	1,955	10.82	8.4		101.09
7	2,384	3.80	2.4		102.54
8	2,785	6.05	3.3		103.76
9	10,380	75.00	10.9	Upper Marker	113.00

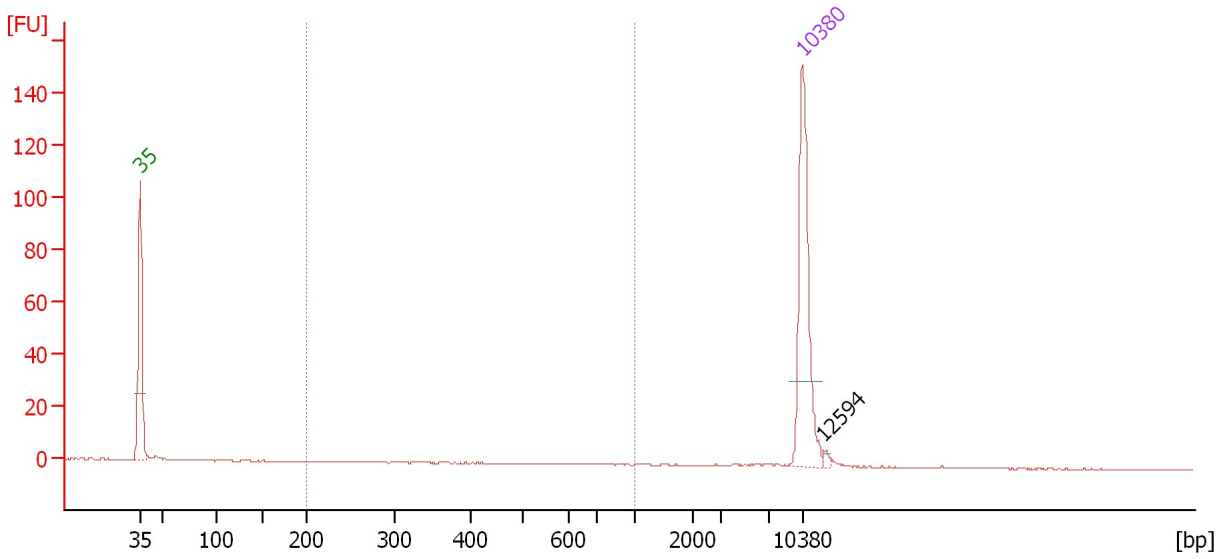
**Region table for sample 7 : LIB 18 RNA-seq**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	362	2,629.22	2,550.1	12,175.6	94	31.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-09-26\2019-09-26\_002.xad

Created: 9/26/2019 1:23:24 PM  
 Modified: 9/26/2019 2:04:42 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 :**

Number of peaks found: 1                      Corr. Area 1: 0.7  
 Noise: 0.2

**Peak table for sample 8 :**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	10,380	75.00	10.9	Upper Marker	113.00
3	12,594	0.00	0.0		115.25

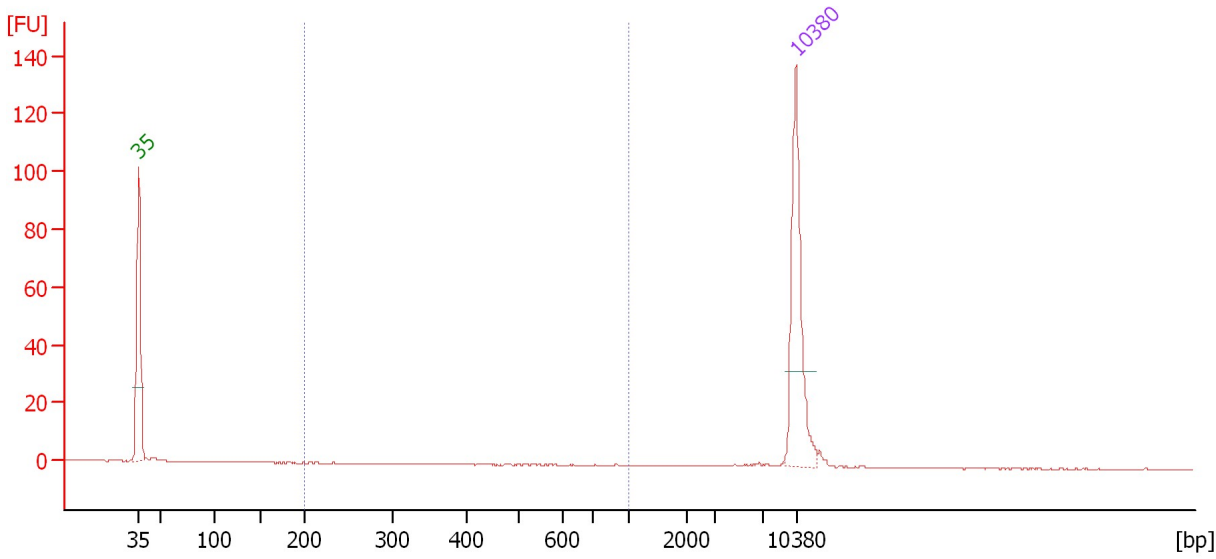
**Region table for sample 8 :**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	420	0.51	0.7	2.1	4	32.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-09-26\2019-09-26\_002.xad

Created: 9/26/2019 1:23:24 PM  
 Modified: 9/26/2019 2:04:42 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 :**

Number of peaks found: 0                      Corr. Area 1: 0.1  
 Noise: 0.2

**Peak table for sample 9 :**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	10,380	75.00	10.9	Upper Marker	113.00

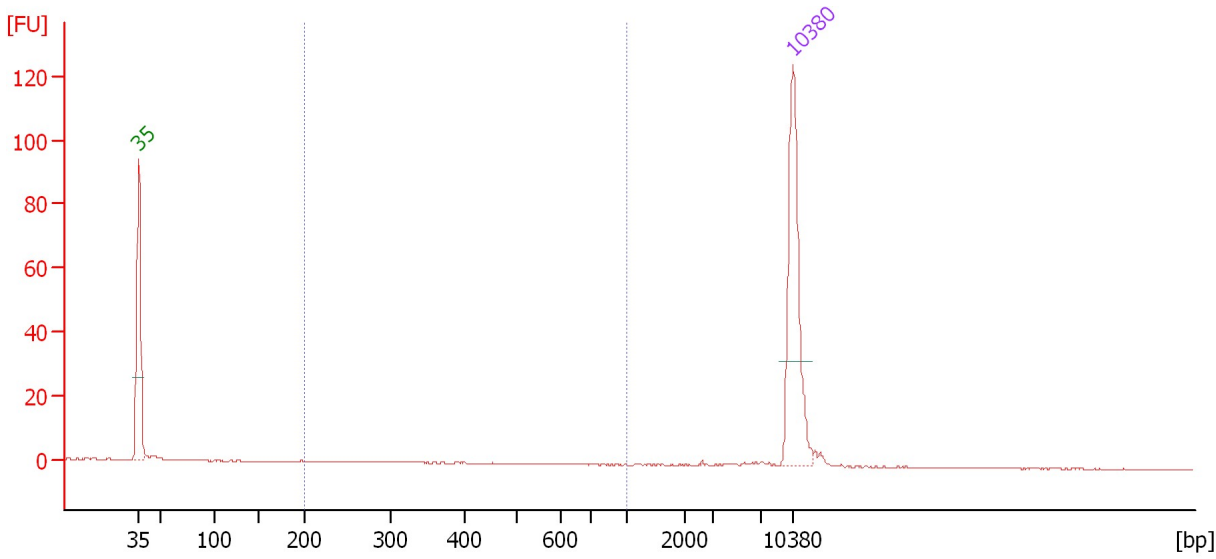
**Region table for sample 9 :**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	884	0.06	0.1	0.1	1	4.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-09-26\2019-09-26\_002.xad

Created: 9/26/2019 1:23:24 PM  
 Modified: 9/26/2019 2:04:42 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 :**

Number of peaks found: 0                      Corr. Area 1: 0.4  
 Noise: 0.1

**Peak table for sample 10 :**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	10,380	75.00	10.9	Upper Marker	113.00

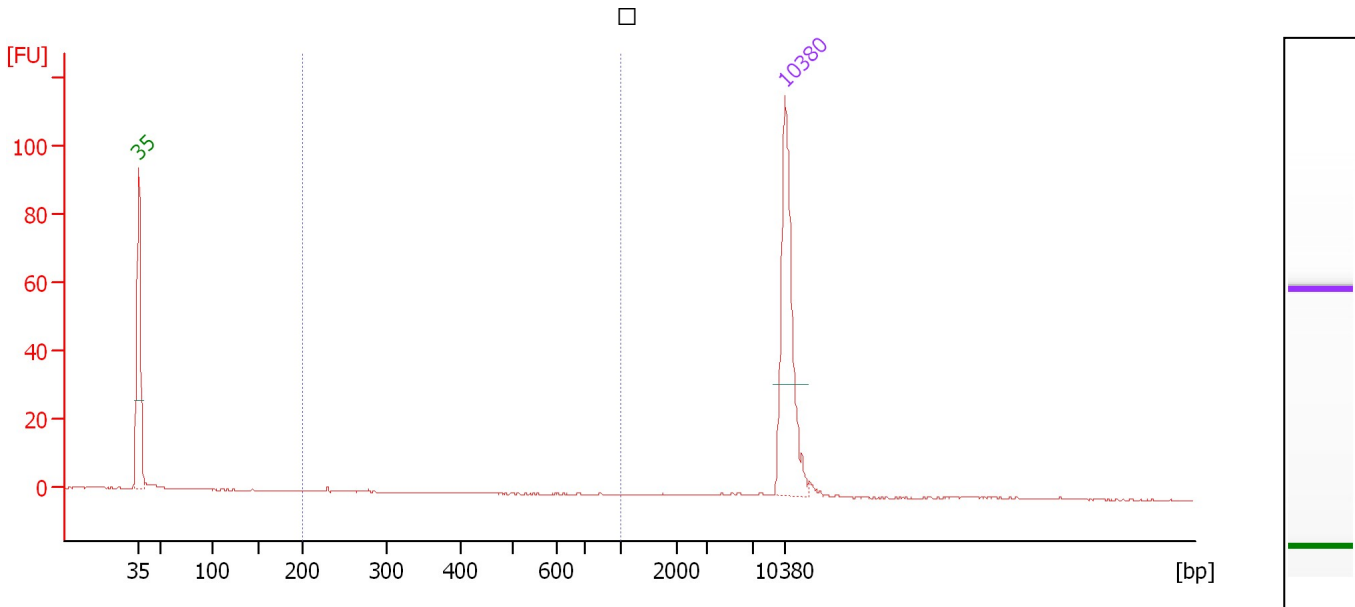
**Region table for sample 10 :**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	346	0.35	0.4	1.7	2	27.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-09-26\2019-09-26\_002.xad

Created: 9/26/2019 1:23:24 PM  
 Modified: 9/26/2019 2:04:42 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 :**

Number of peaks found: 0                      Corr. Area 1: 0.4  
 Noise: 0.1

**Peak table for sample 11 :**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 11 :**

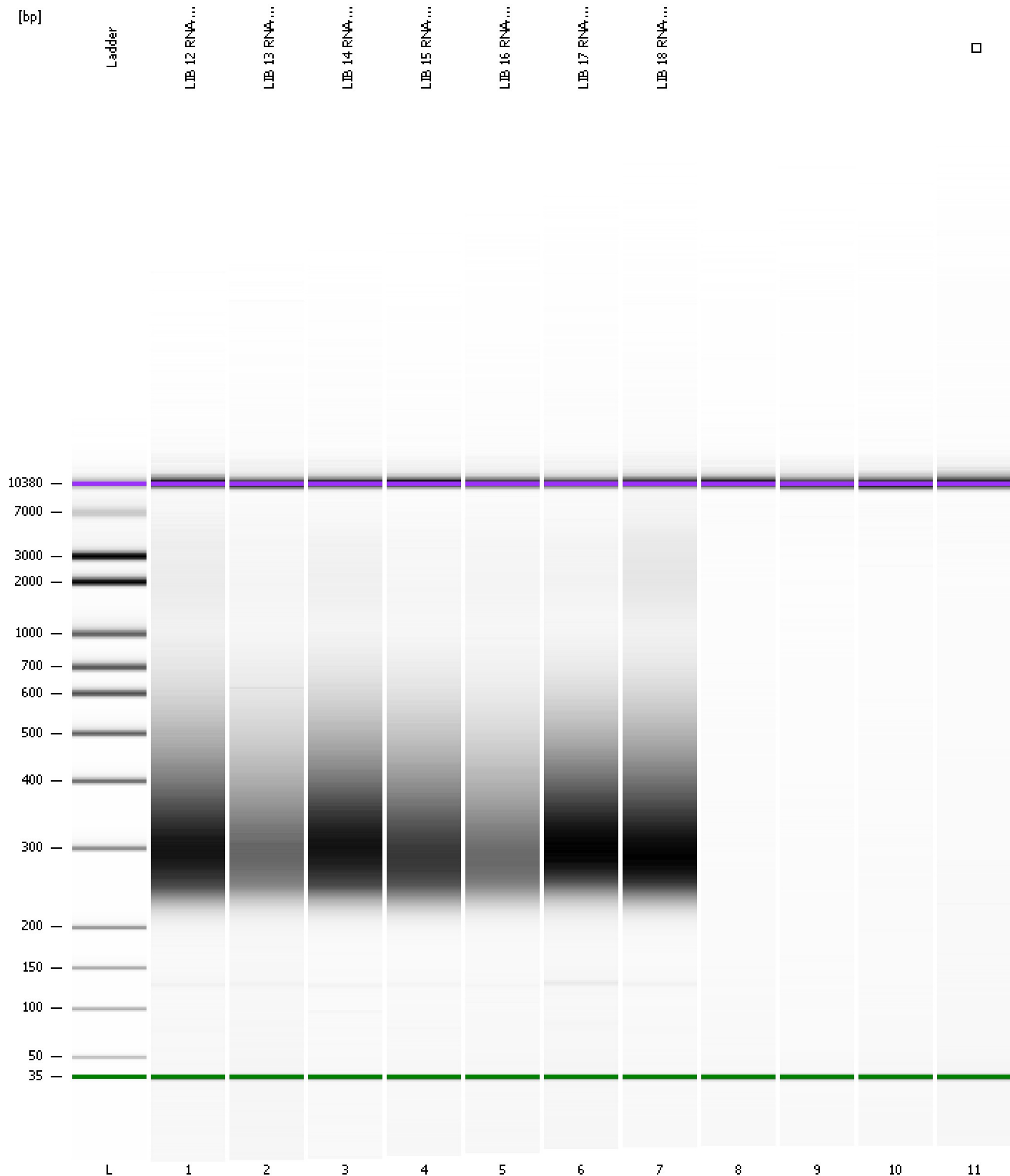
From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	245	0.42	0.4	2.6	4	18.9



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-09-26\2019-09-26\_002.xad

Created: 9/26/2019 1:23:24 PM  
Modified: 9/26/2019 2:04:42 PM

**Gel Image**

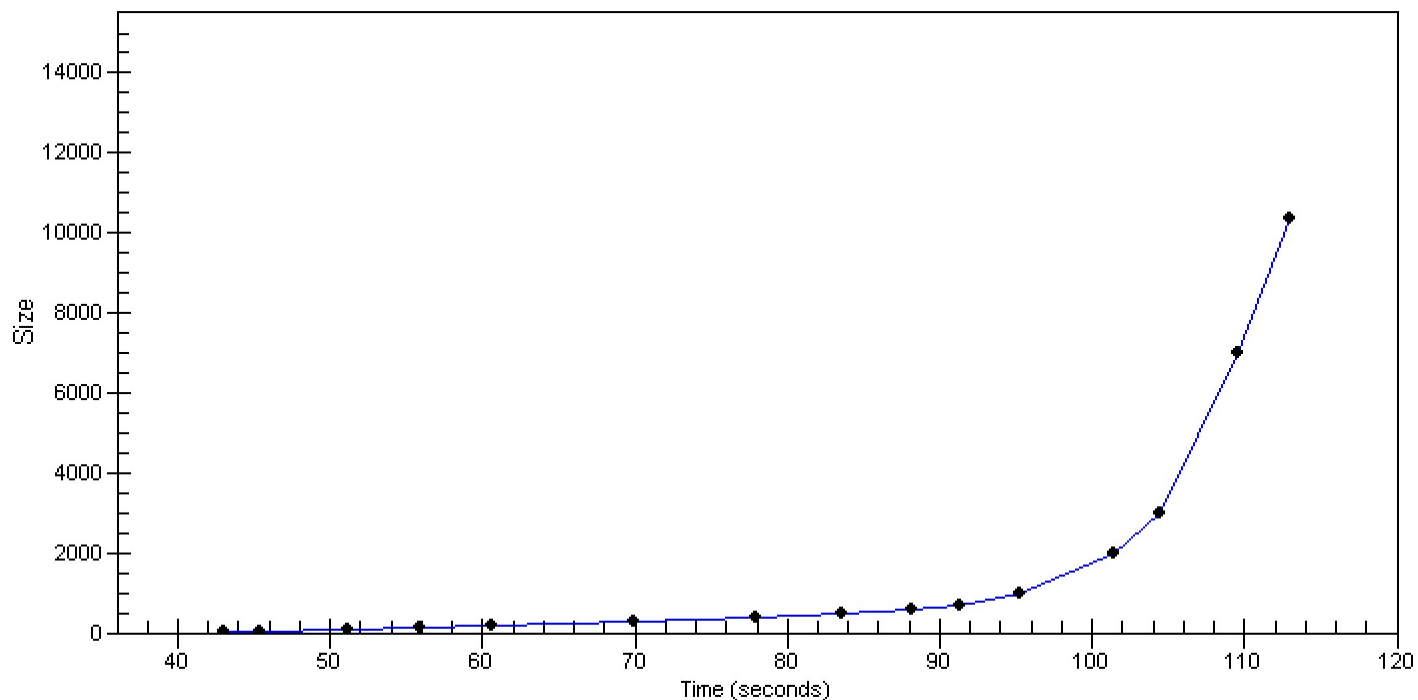


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-09-26\2019-09-26\_002.xad

Created: 9/26/2019 1:23:24 PM  
Modified: 9/26/2019 2:04:42 PM

**Curves**

**Standard Curve**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-09-26\2019-09-26\_002.xad

Created: 9/26/2019 1:23:24 PM  
 Modified: 9/26/2019 2:04:42 PM

**Run Logbook**

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 12)		Instrument	Run		9/26/2019 2:04:41 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2019-09-26\2019-09-26_002.xad)		Instrument	Run		9/26/2019 1:23:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		9/26/2019 1:23:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/26/2019 1:23:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/26/2019 1:23:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		9/26/2019 1:23:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/26/2019 1:23:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/26/2019 1:23:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1